

Paul Krushelnycky
College of Tropical Agriculture and Human Resources
Department of Plant and Environmental Protection Sciences
FTE Distribution: 0% I; 100% R; 0% E

Education

<u>Degree</u>	<u>University</u>	<u>Major</u>
PhD	University of California, Berkeley	Environmental Science, Policy, and Management
BS	Duke University	Biology

Professional Appointments

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Assistant Researcher	University of Hawai‘i	2011 to Present
Junior Researcher	University of Hawai‘i	2008 to 2011
Post-doc	USGS, Hawai‘i	2006 to 2008
Research Technician	USDA, NWRC, Hawai‘i	2000
Research Technician	USGS, Hawai‘i	1994 to 1998

Courses Taught

Course Number and Title (credits)
PEPS 690 Graduate Seminar (1)

Publications (reverse chronological order)

Refereed Journal Publications

Guisado Chavez, J.F., P. Krushelnycky, K.E. Barton, and D.R. Drake. 2025. Breeding system and pollination of *Dubautia menziesii* (Asteraceae), a self-incompatible Hawaiian alpine shrub. *Flora* 323: 152683

Krushelnycky, P.D., S.M. Mosher, J. Rohrer, K. Kawelo, and A.B. Shiels. 2025. Responses of arthropod communities to invasive rat suppression in diverse mesic forests of Hawai‘i. *Biological Invasions* 27: 3.

Krushelnycky, P.D. 2024. Efficacy and non-target risks of broadcasting Amdro ant bait to protect Hawaiian picture-winged fly breeding habitats. *Proceedings of the Hawaiian Entomological Society* 56: 1-12.

Krushelnycky, P.D., L. Berio Fortini, J. Mallinson, and J.M. Felts. 2023. Empirical estimation of habitat suitability for rare plant restoration in an era of ongoing climatic shifts. *Scientific Reports* 13: 19257.

Gibson, G.A.P., P.D. Krushelnycky, and K.N. Magnacca. 2022. *Eupelmus niger* (Hymenoptera: Eupelmidae), a parasitoid of the endangered Hawaiian yellow-faced bee *Hylaeus anthracinus* (Hymenoptera: Colletidae). Proceedings of the Hawaiian Entomological Society 54: 77-92.

Fortini, L.B., P.D. Krushelnycky, D.R. Drake, F. Starr, K. Starr, and C.G. Chimera. 2021. Complex demographic responses to contrasting climate drivers lead to divergent population trends across the range of a threatened alpine plant. Global Ecology and Conservation, <https://doi.org/10.1016/j.gecco.2021.e01954>

Barton, K.E., A. Westerband, R. Ostertag, E. Stacy, K. Winter, D.R. Drake, L. Berio Fortini, C.M. Litton, S. Cordell, P. Krushelnycky, K. Kawelo, K. Feliciano, G. Bennett, and T. Knight. 2021. Hawai'i forest review: Synthesizing the ecology, evolution, and conservation of a model system. Perspectives in Plant Ecology, Evolution and Systematics 52: 125631.

Percy, D.M., P.D. Krushelnycky, C.B.A. King, and L.C. Young. 2020. New state record of the psyllid *Heterotrioza chenopodii* (Reuter, 1876) (Hemiptera: Psylloidea: Triozidae) for Hawaii. Proceedings of the Hawaiian Entomological Society 52: 1-3.

Krushelnycky, P.D., J.M. Felts, R.H. Robichaux, K.E. Barton, C.M. Litton, and M.D. Brown. 2020. Clinal variation in drought resistance shapes past population declines and future management of a threatened plant. Ecological Monographs 90: e01398.

Ogura-Yamada, C.S., and P.D. Krushelnycky. 2020. The effects of the invasive thief ant, *Solenopsis papauna*, on ground-dwelling invertebrates in mesic forests of Hawai'i. Journal of Insect Conservation 24: 151-162.

Leadership Roles (Committees, Boards, Advisory, etc.)

Advising Member. 2002-2008. Hawai'i Ant Group

Associate Faculty. 2009-Present. UH Insect Museum

Advisor. 2013-Present. Channel Islands Ant Eradication Program

President. 2013. Hawaiian Entomological Society

Advisor. 2014, 2018-Present. Hawaiian Entomological Society

Chair. 2016. Research and Technology Working Group, Hawai'i Invasive Species Council

Graduate Students

<u>Category</u>	<u>Current Number of Students</u>	<u>Number Graduated (Career)</u>
Chair of Master Committees	0	1
Chair of PhD Committees	1	0
Member of Master's Committees	2	8
Member of PhD Committees	2	1

Grant Support

Title of Grant: A predictive model for invasive terrestrial arthropod species in the Indo-Pacific.

Source of Grant: Department of Defense

Total Dollar Value (Your share of the grant value): \$1,996,389 (\$288,951)

Dates of Grant: 2025-2029

Role (PI, CoPI): CoPI

Title of Grant: Research and management of yellow-faced bee nesting habitats on West Maui.

Source of Grant: Hawai'i Department of Land and Natural Resources

Total Dollar Value (Your share of the grant value): \$42,703 (\$42,703)

Dates of Grant: 2025

Role (PI, CoPI): PI

Title of Grant: Conserving habitat and other actions for yellow-faced bee species on Maui.

Source of Grant: Hawai'i Department of Land and Natural Resources

Total Dollar Value (Your share of the grant value): \$67,625 (\$67,625)

Dates of Grant: 2023-2026

Role (PI, CoPI): PI

Title of Grant: Subalpine ecosystem biotic trends and ecological processes.

Source of Grant: National Park Service

Total Dollar Value (Your share of the grant value): \$105,700 (\$105,700)

Dates of Grant: 2023-2026

Role (PI, CoPI): PI

Title of Grant: Next generation biosecurity of invasive alien arthropod species.

Source of Grant: Department of Defense

Total Dollar Value (Your share of the grant value): ~\$1.5M (\$148,678)

Dates of Grant: 2021-2026

Role (PI, CoPI): CoPI

Title of Grant: Stabilizing yellow-faced bee populations.

Source of Grant: Hawai'i Department of Land and Natural Resources

Total Dollar Value (Your share of the grant value): \$342,411 (\$342,411)

Dates of Grant: 2022-2025

Role (PI, CoPI): PI

Title of Grant: Enhancing coastal habitat for endangered Yellow-Faced Bees.

Source of Grant: US Fish and Wildlife Service

Total Dollar Value (Your share of the grant value): \$54,862 (\$54,862)

Dates of Grant: 2021-2026

Role (PI, CoPI): PI

Title of Grant: Research on Alpine Ecosystems.

Source of Grant: National Park Service

Total Dollar Value (Your share of the grant value): \$375,000 (\$375,000)

Dates of Grant: 2019-2024

Role (PI, CoPI): PI

Title of Grant: Managing invasive ants as new and emerging threats to endangered insect species on DoD lands in Hawaii.

Source of Grant: Department of Defense Legacy Program

Total Dollar Value (Your share of the grant value): \$334,150 (\$334,150)

Dates of Grant: 2018-2021

Role (PI, CoPI): PI

Title of Grant: Recovering Populations of Hawaiian Yellow-Faced Bees.

Source of Grant: Hawai'i Dept. of Land and Natural Resources

Total Dollar Value (Your share of the grant value): \$318,673 (\$318,673)

Dates of Grant: 2018-2021

Role (PI, CoPI): PI

Title of Grant: Evaluation of water-storing granules as a promising new baiting tool for the control of invasive ants in Hawai'i.

Source of Grant: Hawai'i Invasive Species Council

Total Dollar Value (Your share of the grant value): \$100,305 (\$100,305)

Dates of Grant: 2018-2020

Role (PI, CoPI): PI

Presentations at Conferences

Title: Development of artificial nest blocks as a yellow-faced bee management tool.

Authors (put an asterisk on the presenter): Paul Krushelnycky*, Molly O'Grady, Sheldon Plentovich, Cynthia King, Maria Aihara-Sasaki, Kamakakai Ka'aha'aina

Name of Conference: Pacific Entomological and Botanical Meeting

Location: Honolulu, Hawai'i

Date of Presentation: 12/6/23

Title: Floral resource ecology of the endangered yellow-faced bee *Hylaeus anthracinus*.

Authors (put an asterisk on the presenter): Paul Krushelnycky*, Alysa Choy, Max Gatlin, Haozhang Peng, Tyler Lendt, Molly O'Grady, Kamakakai Ka'aha'aina, John Gillece, Jeff Foster

Name of Conference: Pacific Entomological and Botanical Meeting

Location: Honolulu, Hawai'i

Date of Presentation: 12/6/23

Title: Estimation of climatic suitability for the restoration and potential translocation of Haleakalā 'āhinahina threatened by climate change.

Authors (put an asterisk on the presenter): Paul Krushelnycky*, Lucas Berio Fortini, Jeffrey Mallinson, Jesse Felts

Name of Conference: Hawai'i Conservation Conference

Location: Honolulu, Hawai'i

Date of Presentation: 6/29/23

Title: Efforts to seed new yellow-faced bee populations using translocations.

Authors (put an asterisk on the presenter): Paul Krushelnycky*, Molly O'Grady, Maria Aihara-Sasaki, Cynthia King, Sheldon Plentovich

Name of Conference: Hawai‘i Conservation Conference

Location: Honolulu, Hawai‘i

Date of Presentation: 6/27/23

Title: Climate change threats for native insects.

Authors (put an asterisk on the presenter): Paul Krushelnycky*, Cynthia King, Molly O’Grady, Sheldon Plentovich

Name of Conference: Hawai‘i Conservation Conference

Location: Honolulu, Hawai‘i

Date of Presentation: 7/18/22

Title: Climate-dependent demographic shifts of a threatened endemic Hawaiian plant: current trends and future scenarios for the Haleakalā silversword

Authors (put an asterisk on the presenter): Lucas Fortini*, Paul Krushelnycky, Don Drake

Name of Conference: Hawai‘i Conservation Conference

Location: virtual

Date of Presentation: 9/2/20

Title: Efforts to increase endangered yellow-faced bee populations using artificial nest blocks.

Authors (put an asterisk on the presenter): Molly O’Grady*, Paul Krushelnycky, Cynthia King, Sheldon Plentovich, Keahi Bustamente

Name of Conference: Hawaii Conservation Conference

Location: virtual

Date of Presentation: 9/2/20